STATEMENT OF BASIS

Cargill Oilseeds, Inc.
Guntersville, AL
Marshall County
711-0003

This proposed renewal Title V Major Source Operating Permit is issued under the provisions of ADEM Admin. Code R. 335-3-16. The above named applicant has requested authorization to perform the work or operate the facility shown on the application and drawings, plans, and other documents attached hereto or on file with the Air Division of the Alabama Department of Environmental Management, in accordance with the terms and conditions of this permit.

Cargill Oilseeds was issued its existing Major Source Operating Permit (MSOP) on December 13, 2005 with an expiration date of March 13, 2010. Per ADEM Rule 335-3-16-.12(2), an application for permit renewal shall be submitted at least six (6) months, but not more than eighteen (18) months, before the date of expiration of the permit. Based on this rule, the application for renewal was due to the Department no later than September 13, 2009, but no earlier than September 13, 2008. An application for permit renewal was received by the Department on September 2, 2009. No additional information was deemed necessary for processing of this MSOP. The proposed MSOP will expire in March 13, 2015.

The following sources are significant sources of air pollution for this facility:

- Z002: 720 TPH Old House Aspiration with Cyclone vented to Baghouse
- N003: Barge Loading for Hulls
- Z003: 600 TPH New House Aspiration with Baghouse
- N004: Barge Loading for Meal
- N006: Rail Loading for Hulls
- Z006: 150 TPH Aeroglide Dryer with Screenhouse
- N007: Rail Loading for Meal
- N008: Rail Unloading
- Z010: 119 TPH Flaking Roll Aspiration with Kice Cyclone
- N011: Solvent Tank No. 3
- Z012: Soybean Oil Extraction Process with Mineral Oil Absorption System
- Z013: 119 TPH Soybean Meal Grinding and Aspiration System with Kice Dynajet Baghouse
- Z022: 450 TPH Truck Dump with Baghouse
- X024: 3000 TPD Escher-Wyss Fluidized Bed Dehulling with Five Ducon HE Cyclones
- X025: 150 TPH Elevator East Dust System with Dynajet Baghouse
- X027: 64 MMBtu/hr Cleaver Brooks Boiler
- Z029: 300 TPH Pneumatic Barge Unloading System with Two (2) Baghouses
- X032: 150 TPH Desolventizer Toaster with Two (2) HE Cyclones, and a Cooler with Two (2) HE Cyclones
- X033: 300 TPH Soybean Cleaning and Conveying with Kice Dynajet Baghouse
- X036: 7.5 TPH Secondary Dehulling and Hull Grinding with Four Cyclones Vented to a Baghouse
- X037: 51 MMBtu/hr Murray Boiler
- X038: 7.5 MMBtu/hr Millfeed Conveyor with Two Baghouses
- X039: 300 TPH Meal or Hulls Truck Loadout with Baghouse
- X040: 300 TPH Meal Tank with Baghouse

- X043: 72 MMBtu/hr Wood-Fired Hurst Boiler controlled by Staged Combustion, including associated equipment

RENEWAL NOTE

1. Cargill was issued a PSD permit (711-0003-X043) for the construction of a wood-fired boiler and associated equipment on May 18, 2009. Cargill requests that this permit be incorporated into the Title V permit.

2. Cargill submitted a request for three (3) 502(b)(10) "Flexibility modification" to their permit for the following and request that these changes be reflected in the Title V permit. Approval was received on August 25, 2008

    a. Increase the capacity of the Truck Dump to 450 tph (Z022)
    b. Rebalancing of duct design in flaking mill aspiration system (Z010); and
    c. Installation of a sifting table to the soybean cleaning and conveying system (X033)

Barge and Rail Loadout for Hulls and Meal:

The barge and rail loadout area consists of the following emission points:

Emission Point Designation	Emission Point Name
N003	Barge Loading For Hulls
N004	Barge Loading for Meal
N006	Rail Loading for Hulls
N007	Rail Loadout for Meal
N008	Rail Unloading

Applicability:

- These units are subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*".
- These units are subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.02, "*Fugitive Dust and Fugitive Emissions*".

Emissions Standards:

- There are no unit specific emissions standards for this unit.

Compliance and Performance Test Methods and Procedures:

- There are no unit specific compliance and performance test methods and procedures for this unit.

Emission Monitoring:

- There are no unit specific emissions monitoring requirements for this unit.

Recordkeeping and Reporting Requirements:

- There are no unit specific recordkeeping and reporting requirements for this unit.

Emissions:

Per air permit application forms submitted, the emissions from this unit are as follows:

Emission Point	Pollutant	Potential Emissions	
		(lb/hr)	(TPY)
N003	PM - FUG	0.08	0.35
N004	PM - FUG	0.3	1.31
N006	PM - FUG	0.264	1.16
N007	PM - FUG	1.00	4.38
N008	PM - FUG	2.34	10.25

720 TPH Old House Aspiration System with Cyclone and Baghouse:

This unit is comprised of the following emission point:

- Z002: 720 TPH Old House Aspiration System with Cyclone and Baghouse

Applicability:

- This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*".
- This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.01(1), "*Visible Emissions*".
- This source is subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.04, "*Control of Particulate Emissions in Process Industries – General*".
- This source is subject to the applicable requirements of 40 CFR 64, "*Compliance Assurance Monitoring*". The facility intends on keeping the CAM plan previously approved in the first renewal of the MSOP.

Emissions Standards:

- Opacity:

  Chapter 4 Section .01 states that no person shall discharge into the atmosphere from any source of emission, particulate of an opacity greater than that designated as twenty (20%) percent opacity, as determined by a six (6) minute average. During one six (6) minute period in any sixty (60) minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as forty percent (40%) opacity ***(ADEM Admin Code R. 335-4-.01(1)(a)(b))***.

- Particulate Matter:

  Particulate matter emissions from this unit shall not exceed the lesser of that which is calculated using the process weight equation, as defined in ADEM Admin. Code R. 335-3-4-.04(1), or the requested PM limit of 21.7 lb/hr (95.0 TPY).

Compliance and Performance Test Methods and Procedures:

- Method 5 of 40 CFR 60 Appendix A shall be used in the determination of particulate emissions.
- Method 9 of 40 CFR 60 Appendix A shall be used in the determination of opacity.

Emission Monitoring:

The following 40 CFR 64 Compliance Assurance Monitoring requirements are for this unit:

- A properly maintained and operated device shall be utilized to measure the pressure differential (ΔP) across the baghouse. The device shall be located at eye level and be easily accessible for inspections by Air Division and plant personnel.
- The emissions from the baghouse shall be visually observed a minimum of once weekly to determine if visible emissions are present. If visible emissions are observed, a visible emissions observation shall be conducted within 30 minutes of the observation in accordance with 40 CFR 60, Appendix A, Method 9.
- The facility shall inspect and clean the baghouse no less frequently than annually and whenever visible emissions are observed.
- Corrective action must be taken within four (4) hours whenever visible emissions are observed. Maintenance shall be performed as needed.
- Pressure drop (ΔP) across the baghouse shall be monitored and recorded daily while the unit is operating.
- A pressure drop excursion shall be defined as a pressure drop less than one-half (0.5) inch of water and greater than eight (8) inches of water.
- When a pressure drop excursion occurs, corrective action shall be taken within four (4) hours to identify and correct the problem.

Recordkeeping and Reporting Requirements:

- Records of the date, time, and observed opacity of the weekly visible emissions observations, inspections, corrective actions taken, and maintenance of this source shall be recorded in a logbook. These records shall be retained for a minimum of five (5) years and made available upon request.
- The date, time, and daily baghouse pressure drop observations, for this source shall be recorded in a logbook. These records shall be retained for a minimum of five (5) years and made available upon request.
- A semi-annual report shall be submitted to the Air Division within 60 days of the end of the six (6) month reporting period. This report shall contain the following:
    1. All visible emissions excursions to include the date, time, cause of the visible emissions excursion, and the corrective action taken.
    2. All pressure drop excursions to include time, date, observed pressure drop, cause of the pressure drop excursions, and the corrective action taken.
    3. A statement certifying that the inspections were accomplished as required.

Emissions:

Per air permit application forms submitted, the emissions from this unit are as follows:

Emission Point	**Pollutant**	**Allowable Emissions**		**Uncontrolled Potential Emissions**		**Expected Emissions**	
		(lb/hr)	**(TPY)**	**(lb/hr)**	**(TPY)**	**(lb/hr)**	**(TPY)**
Z002	PM	21.7*	95.0	1,405	6,154	2.81	12.3

* PM emissions shall not exceed the lesser of that which is calculated using the process weight equation, as defined in ADEM Admin. Code R. 335-3-4-.04(1), or the requested PM limit as stated above

New House Soybean Receiving, Storage, and Cleaning:

This unit is comprised of the following emission points:

Emission Point Designation	Emission Point Name
Z003	600 TPH New House Aspiration with Baghouse
Z010	119 TPH Flaking Roll Aspiration with Kice Cyclone
Z013	119 TPH Soybean Meal Grinding and Aspiration System with Kice Dynajet Baghouse
Z022	300 TPH Truck Dump with Baghouse
Z006	150 TPH Aeroglide Direct Fired Dryer with Screenhouse

Applicability:

- These sources are subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*".
- These sources are subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.01(1), "*Visible Emissions*".
- These sources are subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.04, "*Control of Particulate Emissions in Process Industries – General*".
- Emission points Z003, Z013, and Z022 are subject to the applicable requirements of 40 CFR 64, "*Compliance Assurance Monitoring*".
- Emission points Z010 and Z006 are not subject to 40 CFR 64, "*Compliance Assurance Monitoring"*. The cyclone on Z010 is used for product recovery, not pollution control, and there is no pollution control device on Z006.

Emissions Standards:

- Opacity:

  Chapter 4 Section .01 states that no person shall discharge into the atmosphere from any source of emission, particulate of an opacity greater than that designated as twenty (20%) percent opacity, as determined by a six (6) minute average. During one six (6) minute period in any sixty (60) minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as forty percent (40%) opacity ***(ADEM Admin Code R. 335-4-.01(1)(a)(b))***.

- Particulate Matter:

  Particulate matter emissions from emission points Z003, Z013, and Z022 shall not exceed the lesser of that which is calculated using the process weight equation, as defined in ADEM Admin. Code R. 335-3-4-.04(1), or the requested PM limit of 21.7 lb/hr (95.0 TPY) each.

  Particulate matter emissions from Z006 and Z010 shall not exceed the limitations as specified in Proviso No. 31.

- Sulfur Dioxide

  The Aeroglide Dryer (Z006) is limited to the use of natural gas or LPG gas only. Any plans to change the type of fuel burned in this unit must receive prior approval from the Department.

Compliance and Performance Test Methods and Procedures:

- Method 5 of 40 CFR 60 Appendix A shall be used in the determination of particulate emissions.
- Method 6 of 40 CFR 60 Appendix A shall be used in the determination of sulfur dioxide emissions.
- Method 9 of 40 CFR 60 Appendix A shall be used in the determination of opacity.

Emission Monitoring:

The following 40 CFR 64 Compliance Assurance Monitoring requirements apply to emission points Z003, Z013, and Z022:

- A properly maintained and operated device shall be utilized to measure the pressure differential (ΔP) across the baghouses at emission points Z003, Z013, and Z022. The device shall be located at eye level and be easily accessible for inspections by Air Division and plant personnel.
- The emissions from the baghouses shall be visually observed a minimum of once weekly to determine if visible emissions are present. If visible emissions are observed, a visible emissions observation shall be conducted within 30 minutes of the observation in accordance with 40 CFR 60, Appendix A, Method 9.
- The facility shall inspect and clean the baghouses no less frequently than annually and whenever visible emissions are observed.
- Corrective action must be taken within four (4) hours whenever visible emissions are observed. Maintenance shall be performed as needed.
- Pressure drop (ΔP) across the baghouse shall be monitored and recorded daily while the unit is operating.
- A pressure drop excursion shall be defined as a pressure drop less than one-half (0.5) inch of water and greater than eight (8) inches of water.
- When a pressure drop excursion occurs, corrective action shall be taken within four (4) hours to identify and correct the problem.

The following emission monitoring requirements apply to emission points Z010 and Z006, which are not subject to 40 CFR 64:

- The emissions from the cyclone shall be visually observed a minimum of once per week to determine if visible emissions are present. If visible emissions are observed, a visible emissions observation shall be conducted within 30 minutes of the observation in accordance with 40 CFR 60, Appendix A, Method 9.
- The emissions from the dryer and screenhouse shall be visually observed a minimum of once per week when the dryer is in operation to determine if visible emissions are present. If visible emissions are observed, a visible emissions observation shall be conducted within 30 minutes of the observation in accordance with 40 CFR 60, Appendix A, Method 9.
- The facility shall inspect and clean the cyclone and dryer and screenhouse no less frequently than annually and whenever visible emissions are observed.
- Corrective action must be taken within four (4) hours when observed visible emissions are present. Maintenance shall be performed as needed.

Recordkeeping and Reporting Requirements:

- Records of the date, time, and observed opacity of the baghouse, cyclone, and dryer and screenhouse visible emissions observations, inspections, corrective actions taken, and

maintenance of this source shall be recorded in a logbook. These records shall be retained for a minimum of five (5) years and made available upon request.

- The date, time, and daily baghouse pressure drop observations, for this source shall be recorded in a logbook. These records shall be retained for a minimum of five (5) years and made available upon request.
- A semi-annual report shall be submitted to the Air Division within 60 days of the end of the six (6) month reporting period. This report shall contain the following:
    1. All visible emissions excursions to include the date, time, cause of the visible emissions excursion, and the corrective action taken.
    2. All pressure drop excursions to include time, date, observed pressure drop, cause of the pressure drop excursions, and the corrective action taken.
    3. A statement certifying that the inspections were accomplished as required.

Emissions:

Per air permit application forms submitted, the emissions from this unit are as follows:

Emission Point	**Pollutant**	**Allowable Emissions**		**Uncontrolled Potential Emissions**		**Expected Emissions**	
		(lb/hr)	**(TPY)**	**(lb/hr)**	**(TPY)**	**(lb/hr)**	**(TPY)**
Z003	PM	21.7*	95.0	665	2,913	1.33	5.83
Z010	PM	37.2	163	55.3	242	2.52	11.04
Z013	PM	21.7*	95.0	365	1,599	0.73	3.19
Z022	PM	21.7*	95.0	515	2,256	1.03	4.51
Z006	PM	38.6	169	5.18	22.7	5.00	21.9
Z006	CO	N/A	N/A	1.12	4.9	1.12	4.89
Z006	NO_x	N/A	N/A	1.82	8.0	1.82	7.98
Z006	SO_2	N/A	N/A	0.007	0.03	0.007	0.03
Z006	VOC	N/A	N/A	0.07	0.31	0.07	0.31

* PM emissions shall not exceed the lesser of that which is calculated using the process weight equation, as defined in ADEM Admin. Code R. 335-3-4-.04(1), or the requested PM limit as stated above.

Soybean Preparation:

This unit is comprised of the following emission points:

Emission Point Designation	Emission Point Name
X036	7.5 TPH Secondary Dehulling and Hull Grinding with Four Cyclones Vented to a Baghouse
X039	300 TPH Meal or Hulls Truck Loadout with Baghouse
X032	150 TPH DTD with 2 HE Cyclones and Cooler with 2 HE Cyclones
X024	2,000 TPD Escher-Wyss Fluidized Bed Dehulling with Five (5) Ducon HE Cyclones
X040	300 TPH Meal Tank with Baghouse
X038	7.5 TPH Millfeed Conveyor with Two Baghouses

Applicability:

- These sources are subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*".
- These sources are subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.01(1), "*Visible Emissions*".
- These sources have enforceable limits in place in order to prevent them from being subject to the provisions of ADEM Admin. Code R. 335-3-14-.04, "*Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]*".
- Emission points X036, X038, X039, and X040 of this source are subject to the applicable requirements of 40 CFR 64, "*Compliance Assurance Monitoring*".
- Emission points X024 and X032 are not subject to 40 CFR 64, "*Compliance Assurance Monitoring*". The cyclones on these units are used for product recovery, not pollution control.

Emissions Standards:

- Opacity:

  Chapter 4 Section .01 states that no person shall discharge into the atmosphere from any source of emission, particulate of an opacity greater than that designated as twenty (20%) percent opacity, as determined by a six (6) minute average. During one six (6) minute period in any sixty (60) minute period, a person may discharge into the atmosphere from any source of emission, particulate of an opacity not greater than that designated as forty percent (40%) opacity ***(ADEM Admin Code R. 335-4-.01(1)(a)(b))***.

- Particulate Matter:

  These units are subject to ADEM Admin. Code R. 335-3-14-.04. Allowable PM emissions for each emission point are as follows:

Emission Point	Allowable Emissions
X036	4.0 lb/hr (17.5 TPY)
X039	2.74 lb/hr (12.0 TPY)
X032	4.79 lb/hr (21 TPY)
X024	3.45 lb/hr (15.1 TPY)
X040	0.45 lb/hr (2.0 TPY)
X038	1.48 lb/hr (6.5 TPY)

Compliance and Performance Test Methods and Procedures:

- Method 5 of 40 CFR 60 Appendix A shall be used in the determination of particulate emissions.
- Method 9 of 40 CFR 60 Appendix A shall be used in the determination of opacity.

Emission Monitoring:

The following 40 CFR 64 Compliance Assurance Monitoring requirements apply to emission points X036, X038, X039, and X040:

- A properly maintained and operated device shall be utilized to measure the pressure differential (ΔP) across the baghouses at emission points X036, X038, X039, and X040. The device shall be located at eye level and be easily accessible for inspections by Air Division and plant personnel.
- The emissions from the baghouses shall be visually observed a minimum of once weekly to determine if visible emissions are present. If visible emissions are observed, a visible emissions observation shall be conducted within 30 minutes of the observation in accordance with 40 CFR 60, Appendix A, Method 9.
- The facility shall inspect and clean the baghouses no less frequently than annually and whenever visible emissions are observed.
- Corrective action must be taken within four (4) hours whenever visible emissions are observed. Maintenance shall be performed as needed.
- Pressure drop (ΔP) across the baghouses shall be monitored and recorded daily while the unit is operating.
- A pressure drop excursion shall be defined as a pressure drop less than one-half (0.5) inch of water and greater than eight (8) inches of water.
- When a pressure drop excursion occurs, corrective action shall be taken within four (4) hours to identify and correct the problem.

The following emission monitoring requirements apply to emission points X024 and X032, which are not subject to 40 CFR 64:

- The emissions from the cyclones shall be visually observed a minimum of once per week to determine if visible emissions are present. If visible emissions are observed, a visible emissions observation shall be conducted within 30 minutes of the observation in accordance with 40 CFR 60, Appendix A, Method 9.
- The facility shall inspect and clean the cyclones no less frequently than annually and whenever visible emissions are observed.
- Corrective action must be taken within four (4) hours whenever visible emissions are observed. Maintenance shall be performed as needed.

Recordkeeping and Reporting Requirements:

- Records of the date, time, and observed opacity of baghouse and cyclone visible emissions observations, inspections, corrective actions taken, and maintenance of these sources shall be recorded in a logbook. These records shall be retained for a minimum of five (5) years and made available upon request.
- The date, time, and daily baghouse pressure drop observations, for these sources shall be recorded in a logbook. These records shall be retained for a minimum of five (5) years and made available upon request.

- A semi-annual report shall be submitted to the Air Division within 60 days of the end of the six (6) month reporting period. This report shall contain the following:

    1. All visible emissions excursions to include the date, time, cause of the visible emissions excursion, and the corrective action taken.
    2. All pressure drop excursions to include time, date, observed pressure drop, cause of the pressure drop excursions, and the corrective action taken.
    3. A statement certifying that the inspections were accomplished as required.

Emissions:

Per air permit application forms submitted, the emissions from this unit are as follows:

Emission Point	**Pollutant**	**Allowable Emissions**		**Uncontrolled Potential Emissions**		**Expected Emissions**	
		(lb/hr)	**(TPY)**	**(lb/hr)**	**(TPY)**	**(lb/hr)**	**(TPY)**
X036	PM	4.0	17.5	2,000	8,760	2.06	9.01
X039	PM	2.74	12.0	1,600	7,008	2.14	9.39
X032	PM	4.79	21.0	119.75	524.5	1.36	5.97
X024	PM	3.45	15.1	86.3	378	3.45	15.1
X040	PM	0.45	2.0	45.0	197	0.09	0.38
X038	PM	1.48	6.5	25.5	112	0.05	0.23

Soybean Cleaning and Conveying System:

This unit is comprised of the following emission points:

Emission Point Designation	Emission Point Name
X033	300 TPH Soybean Cleaning and Conveying with Kice Cyclone Vented to a Kice Dynajet Baghouse
Z029a and Z029b	300 TPH Pneumatic Barge Unloading System with Two Baghouses (a and b)
X025	150 TPH Elevator East Dust System with Kice Dynajet Baghouse

Applicability:

- These sources are subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*".
- Emission points X033, Z029a and Z029b, and X025 are subject to the applicable requirements of 40 CFR 64, "*Compliance Assurance Monitoring*".
- These units are subject to the applicable requirements of 40 CFR 60 Subpart DD, "*Standards of Performance for Grain Elevators*".

Emissions Standards:

- Opacity:

  These units are subject to 40 CFR 60 Subpart DD, "*Standards of Performance for Grain Elevators*". Per §60.302(b)(2), no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility any process emission which exhibits greater than zero (0%) percent opacity.

- Particulate Matter:

  These units are subject to 40 CFR 60 Subpart DD, "*Standards of Performance for Grain Elevators*". Per §60.302(b)(1), allowable PM emissions for each emission point are as follows:

Emission Point	Allowable Emissions	Regulation
X033	0.01 gr/dscf	40 CFR 60.302(b)(1)
Z029a	0.01 gr/dscf	40 CFR 60.302(b)(1)
Z029b	0.01 gr/dscf	40 CFR 60.302(b)(1)
X025	0.01 gr/dscf	40 CFR 60.302(b)(1)

Compliance and Performance Test Methods and Procedures:

- Method 5 of 40 CFR 60 Appendix A shall be used in the determination of particulate emissions.
- Method 9 of 40 CFR 60 Appendix A shall be used in the determination of opacity.

Emission Monitoring:

The following 40 CFR 64 Compliance Assurance Monitoring requirements apply to emission points X033, Z029a and Z029b, and X025:

- A properly maintained and operated device shall be utilized to measure the pressure differential (ΔP) across the baghouses at emission points X036, X038, X039, and X040. The device shall be located at eye level and be easily accessible for inspections by Air Division and plant personnel.
- The emissions from the baghouses shall be visually observed a minimum of once weekly to determine if visible emissions are present. If visible emissions are observed, a visible emissions observation shall be conducted within 30 minutes of the observation in accordance with 40 CFR 60, Appendix A, Method 9.
- The facility shall inspect and clean the baghouses no less frequently than annually and whenever visible emissions are observed.
- Corrective action must be taken within four (4) hours whenever visible emissions are observed. Maintenance shall be performed as needed.
- Pressure drop (ΔP) across the baghouses shall be monitored and recorded daily while the unit is operating.
- A pressure drop excursion shall be defined as a pressure drop less than one-half (0.5) inch of water and greater than eight (8) inches of water.
- When a pressure drop excursion occurs, corrective action shall be taken within four (4) hours to identify and correct the problem.

Recordkeeping and Reporting Requirements:

- Records of the date, time, and observed opacity of baghouse and cyclone visible emissions observations, inspections, corrective actions taken, and maintenance of these sources shall be recorded in a logbook. These records shall be retained for a minimum of five (5) years and made available upon request.
- The date, time, and daily baghouse pressure drop observations, for these sources shall be recorded in a logbook. These records shall be retained for a minimum of five (5) years and made available upon request.
- A semi-annual report shall be submitted to the Air Division within 60 days of the end of the six (6) month reporting period. This report shall contain the following
    1. All visible emissions excursions to include the date, time, cause of the visible emissions excursion, and the corrective action taken.
    2. All pressure drop excursions to include time, date, observed pressure drop, cause of the pressure drop excursions, and the corrective action taken.
    3. A statement certifying that the inspections were accomplished as required.

Emissions:

Per air permit application forms submitted, the emissions from this unit are as follows:

Emission Point	**Pollutant**	**Allowable Emissions**	**Uncontrolled Potential Emissions**		**Expected Emissions**	
		(gr/dscf)	**(lb/hr)**	**(TPY)**	**(lb/hr)**	**(TPY)**
X033	PM	0.01	1,245	5,453	2.49	10.9
Z029a	PM	0.01	180	788	0.36	1.56
Z029b	PM	0.01	280	1,226	0.56	2.44
X025	PM	0.01	140	613	0.28	1.22

Boilers:

This unit is comprised of the following emission points:

Emission Point	Emission Point Name
X037	51 MMBtu/hr Natural Gas and No. 2 Fuel Oil Fired Murray Boiler
X027	64 MMBtu/hr Natural Gas and No. 2 Fuel Oil Fired Cleaver Brooks Boiler
X043	72 MMBtu/hr Wood-Fired Hurst Boiler controlled by Staged Combustion

Applicability:

- These sources are subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*".

- These sources are subject to the applicable requirements of 40 CFR 60 Subpart D_c, "*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units"*.

- X027 and X037 boilers have enforceable limits in place in order to prevent them from being subject to the provisions of ADEM Admin. Code R. 335-3-14-.04, "*Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]*".

- X043 has enforceable limits in place in order to comply with the applicable provisions of ADEM Admin. Code R. 335-3-14-.04. "*Air Permits Authorizing Construction in Clean Air Areas [Prevention of Significant Deterioration]"*.

- These boilers are subject to the applicable requirements of 40 CFR 63 Subpart DDDDD, "*National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters*". However, this subpart was vacated on June 8, 2007. Requirements from this subpart will not be included in the permit.

- X027 and X037 boilers are not subject to the applicable requirements of 40 CFR 64, "*Compliance Assurance Monitoring*". There are no pollution control devices on these units.

Emissions Standards:

- X027 and X037 are limited to the use of natural gas, No. 2 fuel oil, soybean oil, and tallow as fuel to fire the boilers. Any plans to change the type of fuel must receive prior approval from the Air Division.

- Opacity:

  The boilers are subject to 40 CFR 60 Subpart D_c, "*Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units"*. Per §60.43c(c), the boilers shall not discharge into the atmosphere any gases that exhibit greater than twenty (20%) percent opacity on a six (6) minute average, except for one six (6) minute period per hour of not more than twenty-seven (27%) percent opacity.

- Particulate Matter:

  - X027 and X037 have enforceable limits in place in order to prevent them from being subject to the provisions of ADEM Admin. Code R. 335-3-14-.04. Allowable PM emissions for each emission point are as follows:

Emission Point	Allowable PM Emissions (TPY)	Allowable PM_{10} Emissions (TPY)
X037	26.8[a]	16.8 [a]
X027		

[a] – *Total for both boilers combined.*

- These sources are subject to the applicable requirements of ADEM Admin. Code R. 335-3-4-.03(1), "Control of Particulate Emissions for Fuel Burning Equipment", which specifies that particulate emissions from each boiler shall not exceed that as determined by the following equation for a Class I County:

$$E = 1.38H^{-0.44}$$

Where
E = emissions in lb/MMBtu
H = heat input in MMBtu/hr

- Therefore, the allowable emissions for each boiler are as follows:

Boiler Number	Boiler Size	Allowable
X037	51.0 MMBtu/hr	0.24 lb/MMBtu
X027	64.0 MMBtu/hr	0.22 lb/MMBtu
X043	72.0 MMBtu/hr	0.21 lb/MMBtu

- On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in 40 CFR 60.43c (e)(2), (e)(3), and (e)(4).
  - ❖ This condition only applies to wood fired boiler (X043). X027 and X037 were constructed prior to the above mention date and are not subject to this requirement. However, during the 2009 PSD process, the facility requested a more stringent for the wood fired boiler.

- Particulate matter (PM) emissions from the wood-fired boiler shall not exceed 0.025 lb of filterable PM/MMBtu.

- Sulfur Dioxide

  - The sulfur content of fuel oil burned in X027 and X037 shall not exceed 0.5% by weight as determined by procedures found in ASTM D 129-64 or an equivalent method as approved by the Department.

  - The boilers shall not emit in excess of 4.0 pounds SO_2 per million BTU heat input. Compliance with this limit is inherent through compliance with NSPS Subpart Dc for boilers X027 and X037.

- X027 and X037 have enforceable limits in place in order to prevent them from being subject to the provisions of ADEM Admin. Code R. 335-3-14-.04. Allowable SO_2 emissions for each emission point are as follows:

Emission Point	Allowable SO_2 Emissions (TPY)
X037	39.6[a]
X027	

[a] – *Total for both boilers combined.*

- Nitrogen Oxides

  - X027 and X037 have enforceable limits in place in order to prevent them from being subject to the provisions of ADEM Admin. Code R. 335-3-14-.04. Allowable NO_x emissions for each emission point are as follows:

Emission Point	Allowable NO_x Emissions (TPY)
X037	57.0[a]
X027	

[a] – *Total for both boilers combined.*

  - Nitrogen oxide (NO_x) emissions from the X043 shall not exceed 0.22 lb of NO_x/MMBtu.

- The following emissions limits shall be used to calculate actual emissions from X027 and X037:

Pollutant	Soybean Oil [b] ($lb/10^3$ gal)	No. 2 Fuel Oil [c] ($lb/10^3$ gal)	Tallow [d] ($lb/10^3$ gal)	Natural Gas [e] ($lb/10^6$ scf)
PM	3.80	2.00	6.90	8.00
PM_{10}	3.80	3.30	6.90	7.60
NO_x	25.0	20.0	20.0	100.0
SO_2	21.3	71.0	1.90	0.60

Compliance and Performance Test Methods and Procedures:

- If testing is required, particulate matter (PM) emission shall be determined in accordance with Method 5 of 40 CFR 60, Appendix A.

- If testing is required, sulfur dioxide (SO_2) emissions shall be determined in accordance with Method 6 of 40 CFR 60, Appendix A.

- If testing is required, nitrogen oxides (NO_x) emissions shall be determined in accordance with Method 7 of 40 CFR 60, Appendix A.

- If testing is required, volatile organic compound (VOC) emissions shall be determined in accordance with Method 25 of 40 CFR 60, Appendix A.

- If testing is required, carbon monoxide (CO) emissions shall be determined in accordance with Method 10 of 40 CFR 60, Appendix A.

- Visible emissions observations (VEO) shall be conducted in accordance with Method 9 40 CFR 60, Appendix A.

- Sulfur content of fuel oil, soybean oil, or tallow burned in these boilers shall be determined accordance with procedures found in ASTM-D 129-00 or fuel oil supplier certification.

- Compliance with the emissions limits shall be determined by calculating the actual emissions from the boilers (X027 and X037) on twelve month rolling basis using the following equations:

$$E_{Px} = E_{NG} + E_{FO} + E_{SBO} + E_{TA}$$

Where:
E_{Px} = Total monthly emissions for each criteria pollutant "x"
E_{NG} = Emissions from the combustion of natural gas
E_{FO} = Emissions from the combustion of No. 2 fuel oil
E_{SBO} = Emissions from the combustion of soy bean oil
E_{TA} = Emissions from the combustion of tallow

AND

$$E_{Tx} = E_{P1} + E_{P2} + E_{P3} + ... + E_{P12}$$

Where:
E_{Tx} = Total twelve month rolling total of each criteria pollutant "x"

- The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

- Method 5, 5B, or 17 of appendix A of 40 CFR 60 Subpart D_c shall be used to measure the concentration of PM as follows in §60.45c.

- The owner or operator of an affected facility subject to the PM and/or opacity standards under §60.43c shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in 40 CFR 60.45c (c).

<u>Emission Monitoring:</u>

- An instantaneous observation of visible emissions from each stack associated with these units shall be accomplished weekly while each unit is operating on fuel oil, soybean oil, tallow, or any combination of these fuels.

- If any visible emissions are observed, a visible emissions observation (VEO) shall be conducted within 30 minutes of the observation in accordance with 40 CFR 60, Appendix A, Method 9.

- Corrective action must be taken within four (4) hours whenever visible emissions are observed. Maintenance shall be performed as needed.

- A sample of soybean oil and tallow shall be collected and analyzed for sulfur content at least once during each semi-annual reporting period.

- If the facility chooses to demonstrate compliance with the fuel oil sulfur content limit based on fuel oil sampling, one sample of fuel oil shall be collected from each fuel oil shipment. Each sample shall be analyzed in accordance with ASTM D 129-00 or an equivalent method as approved by the Department.

- The PM and opacity standards apply at all times, except during periods of startup, shutdown, or malfunction.

- Except as provided in 40 CFR 60.47c (c), (d), (e), and (f) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under §60.43c shall install, calibrate, maintain, and operate a COMS for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system.

- All COMS for measuring opacity shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

Recordkeeping and Reporting Requirements:

- Records shall be maintained indicating the daily, monthly, and rolling twelve (12) month totals of each fuel burned in X027 and X037.

- The owner or operator shall record and maintain records of the amount of wood combusted during each calendar month.

- Records of the sulfur content of the No. 2 fuel oil, soybean oil, and tallow burned in these units must be kept in a permanent form suitable for inspection. These records shall be maintained for at least five (5) years from the date of generation and shall be made available upon request.

- If utilized, fuel oil supplier certificates shall contain the name of the oil supplier and a statement from the oil supplier that the oil complies with the sulfur content limit, and shall be kept in a permanent form suitable for inspection for a period of five (5) years from the date of generation and shall be made available upon request.

- Laboratory analyses shall be kept in a permanent form suitable for inspection for a period of five (5) years from the date of generation and shall be made available upon request.

- Records documenting the monthly and twelve (12) month rolling total of emissions of each pollutant shall be kept in a permanent form suitable for inspection and shall be made available to the permitting authority upon request. These records shall be maintained for a period no less than five (5) years from the date of generation.

- Monthly and updated twelve month (12) total emissions inventories for each boiler shall be compiled no later than the tenth (10^{th}) day of the month following each monthly reporting period.

- Should the rolling twelve (12) month emissions total for any pollutant exceed the allowable emissions limit, the Department shall be notified within forty-eight (48) hours of determining the exceedance.

- Quarterly reports shall be submitted to the Air Division within 30 days of the end of each calendar quarter. This report shall contain the following:
  - Type and quantity of each fuel combusted in each boiler during the reporting period

- A copy of the fuel oil supplier certificate or laboratory certificate of analysis stating the sulfur content in each fuel shipment
- Type and quantity of each pollutant emitted during the reporting period
- Type and quantity of each pollutant emitted during the reporting period Rolling twelve (12) month total of each pollutant emitted during the preceding consecutive twelve months in both boilers
- A statement of certification of truth, accuracy, and completeness as described in General Proviso No. 9; and
- Signature of the responsible official as required by General Proviso No. 9

- The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction and actual startup, as provided by §60.7. This notification shall include:
    1. The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility

    2. If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under §60.42c, or §60.43c.

    3. The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

- The owner or operator of each wood-fired affected facility subject to the opacity limits under §60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period.

- The owner or operator of each affected facility subject to the PM or opacity limits of §60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the COMS using the applicable performance specifications in appendix B of this part.

Emissions:
Per air permit application forms submitted, the emissions from this unit are as follows:

Emission Point	**Pollutant**	**Allowable Emissions**		**Uncontrolled Potential Emissions**		**Expected Emissions**	
		(lb/hr)	**(TPY)**	**(lb/hr)**	**(TPY)**	**(lb/hr)**	**(TPY)**
X027&X037	SO_2	9.04	39.6	58.32	255.45	9.04	39.6
X027&X037	NO_x	10.43	57.0	16.43	71.96	10.43	45.56
X027&X037	CO			6.49	28.41	6.49	28.35
X027&X037	PM	2.71	26.8	2.71	11.88	2.71	11.84
X027&X037	PM_{10}	2.71	16.8	2.71	11.88	2.71	11.84
X027&X037	VOC			0.64	2.79	0.70	3.05
X043	SO_2	1.80	7.88			1.80	7.86
X043	NO_x	15.84	69.38			15.84	69.19
X043	CO			21.60	94.61	21.60	94.35
X043	PM/PM_{10}	3.02	13.25			3.02	13.19
X043	VOC			1.22	5.36	1.22	5.33
X043	HAP			2.67	11.69	2.67	11.66

Soybean Oil Extraction Process:

This unit is comprised of the following emission points

- Z012: Soybean Oil Extraction Process with Mineral Oil Absorption System
- N011: 30,000 Gallon Solvent Storage Tank

Applicability:

- These sources are subject to the applicable requirements of ADEM Admin. Code R. 335-3-16-.03, "*Major Source Operating Permits*".
- These sources are subject to the applicable provisions of 40 CFR 63 Subpart GGGG, "*National Emissions Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production*".
- This process is subject to applicable requirements and must comply by the applicable deadline specified in EPA Consent Decree CAN: 05-2037JMR/FLN, which was lodged on September 1, 2005, signed on February 27, 2006, and entered on March 3, 2006.
- The solvent storage tank is not subject to the applicable requirements of 40 CFR 60 Subpart K_b, "*Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984*". Per §60.110b (d)(8), subpart does not apply to vessels subject to subpart GGGG of 40 CFR part 63.

Emissions Standards:

- HAP Emissions
    - This facility shall maintain a compliance ratio of less than or equal to 1.00 of actual solvent loss to allowable solvent loss. The allowable solvent loss is a function of the oilseed processed and the solvent loss factor (SLF) for this facility.
    - The hexane solvent, soybean oil extraction process shall operate at an adjusted solvent loss ratio not to exceed 0.20 gallons of solvent per ton of oilseed processed, on a rolling average of the 12 most recent operating months.

Emission Monitoring:

- Emissions monitoring shall be achieved through recordkeeping and reporting practices.

Recordkeeping and Reporting Requirements:

- Beginning in March 2009, the results of the monitoring shall be maintained in a log (in written or electronic format) on-site in the form of Table 1 "Extraction Solvent Loss Recordkeeping Table" and made available to an authorized representative upon request.
- Beginning after March 2010, the Permittee shall submit a semi-annual summary report of monitoring and recordkeeping activities for the preceding six-month period. All instances of deviations from the requirements of this permit must be clearly identified. The semi-annual summary report shall contain the following:
    - The adjusted solvent loss ratio for each of the previous 17 calendar months; and
    - The rolling average of the adjusted solvent loss ratio for the 17 most recent operating months. This rolling average shall be calculated and reported for each 12 calendar month period ending in the semi-annual reporting period

- The compliance demonstration plan and SSM plan shall be kept on-site in a permanent form suitable for inspection and made available upon request. These reports shall be kept for the life of the facility.
- Records of the monthly and twelve (12) month rolling total of actual solvent loss shall be kept in a permanent form suitable for inspection and made available upon request. These records shall be maintained for a period of five (5) years from the date of generation
- Monthly and twelve (12) month rolling totals of hexane solvent usage shall be kept in a permanent form suitable for inspection and made available upon request. These records shall be kept for a period of five (5) years from the date of generation
- Records of the monthly and twelve (12) month rolling total of actual solvent loss shall be kept in a permanent form suitable for inspection and made available upon request. These records shall be maintained for a period of five (5) years from the date of generation
- Records of the monthly and twelve (12) month rolling totals (in tons) of oilseed processed shall be kept in a permanent form suitable for inspection and made available upon request. These records shall be maintained for a period of five (5) years from the date of generation
- Records of the monthly and twelve (12) month compliance ratios shall be kept in a permanent form suitable for inspection and made available upon request. These records shall be maintained for a period of five (5) years from the date of generation
- Records of the volume fraction of each HAP in each delivery of extraction solvent shall be kept in a permanent form suitable for inspection and made available upon request. These records shall be maintained for a period of five (5) years from the date of generation
- Records of the total gallons of extraction solvent received in each delivery shall be kept in a permanent form suitable for inspection and made available upon request. These records shall be maintained for a period of five (5) years from the date of generation
- Records of the monthly weighted average volume fraction of HAP in the extraction solvent for the previous twelve (12) months shall be kept in a permanent form suitable for inspection and made available upon request. These records shall be maintained for a period of five (5) years from the date of generation
- Manufacturer supplied certificates of analysis or Material Safety Data Sheets (MSDS) for the hexane solvent shall be kept in a permanent form suitable for inspection for a period of five (5) years from the date of generation and shall be made available upon request
- An annual MACT compliance certification is due at the Department 12 calendar months after submitting the notification of compliance status. Each subsequent annual MACT compliance certification is due 12 calendar months after the previous annual compliance certification. The annual MACT compliance certification provides the compliance status for each operating month during the 12 calendar months period ending 60 days prior to the date on which the report is due. This report shall include the following:
    - The name and address of the owner or operator.
    - The physical address of the vegetable oil production process.
    - Each listed oilseed type processed during the 12 calendar months period covered by the report.
    - Each HAP present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report.
    - A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source.
    - A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report.
    - Certification that the facility is following the procedures described in the plan for demonstrating compliance.
    - Certification that the compliance ratio is less than or equal to 1.00.

- A deviation notification report shall be submitted to the Department for each instance that the calculated compliance ratio exceeds 1.00. This report shall be received by the Department by no later than the last day of the month following the calendar month in which the deviation occurred.
- *Periodic startup, shutdown, and malfunction report.* If you choose to operate your source under an initial startup period subject to §63.2850(c)(2) or (d)(2) or a malfunction period subject to §63.2850(e)(2), you must submit a periodic SSM report by the end of the calendar month following each month in which the initial startup period or malfunction period occurred. The periodic SSM report must include the items in paragraphs (c)(1) through (3) of this section:
    - The name, title, and signature of a source's responsible official who is certifying that the report accurately states that all actions taken during the initial startup or malfunction period were consistent with the SSM plan.
    - A description of events occurring during the time period, the date and duration of the events, and reason the time interval qualifies as an initial startup period or malfunction period.
    - An estimate of the solvent loss during the initial startup or malfunction period with supporting documentation.
- *Immediate SSM reports.* If you handle a SSM during an initial startup period subject to §63.2850(c)(2) or (d)(2) or a malfunction period subject to §63.2850(e)(2) differently from procedures in the SSM plan and the relevant emission requirements in §63.2840 are exceeded, then you must submit an immediate SSM report. Immediate SSM reports consist of a telephone call or facsimile transmission to the responsible agency within 2 working days after starting actions inconsistent with the SSM plan, followed by a letter within 7 working days after the end of the event. The letter must include the items in paragraphs (d)(1) through (3) of this section:
    - The name, title, and signature of a source's responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM plan.
    - A description and date of the SSM event, its duration, and reason it qualifies as a SSM.
    - An estimate of the solvent loss for the duration of the SSM event with supporting documentation.

Emissions:

Per air permit application forms submitted, the emissions from these units are as follows:

Emission Point	Pollutant	Allowable Emissions	Uncontrolled Potential Emissions		Expected Emissions	
		(gal/ton)	(lb/hr)	(TPY)	(lb/hr)	(TPY)
Z012 + N011	VOC	0.20	275	1,205	75.3	330